

# The Canadian Society of Cost Accountants

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Issued by the Canadian Society of Cost Accountants,  
Headquarters, 81 Victoria St., Toronto, Canada,  
1929

## CONSTITUTION

The Canadian Society of Cost Accountants was incorporated by Dominion Charter under date of May 3rd, 1920. The applicants for incorporation, who constituted the first or provisional directors, were:—James Hutchison, Montreal; R. J. Dilworth, Toronto; F. C. Gilbert, Winnipeg; G. W. Dickson, Halifax; G. E. Winter, Vancouver; G. C. Rooke, Regina; J. B. Sutherland, Calgary; and R. A. MacIntyre, St. John. The Society is subject to the Companies Act of Canada, and its operations are governed by by-laws passed at general meetings of the Society.

## OBJECTS OF THE SOCIETY

The objects of the Canadian Society of Cost Accountants as set forth in its Charter are as follows:—

(a) To promote actively the study and application of the Science of Cost Accounting.

(b) To develop and foster in commerce and industry a wider adoption of scientific Cost Accounting methods as an aid to management and executive control.

(c) To provide an organization to facilitate the increase in knowledge and proficiency of its members, in all matters relating to Cost Accounting and allied branches of commercial and industrial management.

## BY-LAWS

### ARTICLE 1. MEMBERSHIP

(a) Any person of the full age of twenty-one years may be admitted to membership in the Society provided he is qualified in any of the following groups:

- (1) Members in good standing of any public body of accountants incorporated under the authority of the legislature of any Province of Canada, and any other persons who have been engaged professionally in the practice of accounting, cost accounting, or engineering, either on their own account or in the employ of others for a period of at least three years, or whose experience shall be accepted by the Board of Directors as equivalent thereto.
- (2) Persons who are employed as Accounting Officers of any organization or association, whose duties shall consist in whole or in part of supervision over or control of all or part of the cost accounting of such organization or association.
- (3) Executive Officers or Departmental Heads of any organization or association, who are directly interested in the development of the science of cost accounting.
- (4) Persons engaged in teaching or in educational work connected with accounting, cost accounting, commercial or industrial management, or engineering.

(b) Persons of age eighteen years or over may be admitted to limited membership in the Society as junior members, if they are employed in any clerical capacity by or under the supervision of a member of the Society and are so certified by such Member; provided that persons admitted as Junior Members shall cease to be such whenever, in the opinion of the Board of Directors, they have ceased to be so employed.

(c) All applications for membership or Junior Membership shall be in writing on forms provided for that purpose. Each applicant shall be proposed and seconded by two members of the Society, and each applicant for junior membership shall be certified as to character and eligibility by the member in whose employ he is.

(d) All applications shall be submitted to the Board of Directors, and the approval of a majority of the directors present and voting at any meeting of the Board shall be sufficient for election.

## ARTICLE 2. FEES

(a) The fee for membership in the Society shall be Twenty Dollars per year for members and Five Dollars per year for junior members.

(b) The fee for members shall be payable in advance on the first day of March in each year, or, at the option of the member, in two half yearly instalments of equal amounts payable respectively on the first day of March and first day of September in each year.

(c) Members who are elected during any fiscal year shall be required to pay fees only for the unexpired portion of the said year, dating from the day of election.

(d) The fee for Junior Members shall be payable in advance on the first day of March in each year, or, at the option of the member, in two half-yearly instalments of equal amounts payable respectively on the first day of March and the first day of September in each year.

(e) Any member or junior member who shall fail to make payment of his fee within two months after the date fixed for such payment shall be liable, after due notice and a failure to make payment within one month thereafter, to have his membership or junior membership terminated by the Board of Directors.

## ARTICLE 3. GOVERNMENT

(a) The affairs of the Society shall be managed by a Board of Directors, which shall consist of not less than fifteen and not more than thirty members of the Society who shall be elected by the members at the annual meeting of the Society, and of the chairman and the vice-chairman of each chapter.

(b) For the transaction of business at any meeting of the Board of Directors five shall form a quorum.

## ARTICLE 4. OFFICERS

(a) The Board of directors shall, at their first meeting after such election, elect from among themselves a President, two Vice-Presidents, an Honorary Secretary and an Honorary Treasurer, and may

also from time to time appoint such other officers as the business of the Society shall render expedient and determine their duties and remuneration.

(b) The President of the Society may designate any member of the Board to act as Director in charge of some special phase of the activities of the Society, and any Director so appointed shall make a periodical report to the President of his work in that connection.

#### ARTICLE 5. MEETINGS

(a) Notice of the time and place for holding a general meeting of the Society shall be given at least fourteen days previously to the time in such notice specified for such meeting, by mail, addressed to the last known address of each member in good standing. At all general meetings of the Society every member in good standing shall be entitled to one vote and such vote may be given in person or by proxy if such proxy is himself a member in good standing. All questions proposed for the consideration of the members at such meetings shall be determined by the majority of votes, and the Chairman at such meetings shall have the casting vote in case of an equality of votes.

(b) A special general meeting of the Society may be called at any time by the President or by a majority of the Board of Directors or upon the written request of at least twenty members in good standing.

(c) For the transaction of business at any general meeting of the Society twenty members present shall constitute a quorum.

#### ARTICLE 6. ANNUAL MEETING

(a) The fiscal year of the Society shall end on the last day of February in each year, and the annual meeting of the Society shall be held within two months thereafter at such time and place as the Board shall determine.

(b) A report on the work of the Society, together with a financial statement for the previous year, duly audited, shall be presented at each annual meeting.

(c) At the annual meeting in each year two Auditors shall be elected by the members of the Society from among their number, and the persons so elected shall certify as to the correctness of the next following financial statement.

#### ARTICLE 7. CHAPTERS

(a) The Board of Directors may authorize the formation of Local Chapters in such centres as they may deem advisable, may designate the territory to be allotted to such chapters, and may make such grants from the funds of the Society as they may deem expedient for the development and carrying on of Chapter work.

(b) Each Chapter shall be entitled to 20% of the fees collected by the Society from members within its territory, with a minimum of \$60 (Sixty Dollars) per year, payable semi-annually, as and when directed by the Board of Directors.



(c) The fiscal year of all Chapters shall end on the last day of February in each year. The annual meeting of each Chapter shall be held within one month thereafter.

(d) Each Chapter shall be governed by a Board of Directors, elected at its annual meeting, of not less than seven and not more than fifteen members. These directors shall elect from their own number a Chairman, a Vice-Chairman and a Secretary-Treasurer or a Secretary and a Treasurer. At any meeting of the directors of the Chapter five shall constitute a quorum.

(e) Each Chapter shall have the right to make such other regulations as may be found necessary to meet local conditions, subject always to the approval of the Board of Directors of the Society.

(f) Each Chapter shall, within one month after the close of its financial year, forward to the Society a copy of its financial statement for the year.

#### ARTICLE 8. CORPORATE SEAL

The Society shall have a Corporate Seal. An impression of the Corporate Seal, certified by either the President or a Vice-President and by either the Honorary Secretary or the Honorary Treasurer, shall be binding upon the Society, but the Officers so certifying shall be personally accountable to the Directors and the Society for the due and proper exercise of such authority.

#### ARTICLE 9. SIGNING OFFICERS

All cheques or other negotiable instruments not requiring the use of the Corporate Seal shall be signed by the President, or a Vice-President, or the Honorary Treasurer and by the Executive Secretary or other officer designated by the Directors.

#### ARTICLE 10. EXAMINATIONS

The Board of Directors shall have power to hold examinations and to issue certificates of efficiency to successful candidates.

#### ARTICLE 11. AMENDMENT OF BY-LAWS

The Directors may from time to time repeal, amend or re-enact by-laws of the Society, but every such by-law and every repeal, amendment or re-enactment thereof, unless in the meantime confirmed at a general meeting of the Society, duly called for that purpose, shall only have force until the next annual meeting of the Society, and in default of confirmation thereat shall, at and from that time, cease to have force; provided, however, that no such repeal, amendment or re-enactment thereof shall have any force or effect whatever until approved by the Secretary of State in accordance with sub-section 4 of Section 7A of the Companies Act.

#### ARTICLE 12

All former by-laws of the Society are hereby repealed.

## ORGANIZATION AND WORK

The Canadian Society of Cost Accountants has functioned continuously from the date of its incorporation, and its activity has steadily increased. In the early years meetings were only occasional, but with the development of Chapters in the leading cities regular programmes were arranged. In 1924 the Society was affiliated with the National Association of Cost Accountants of the United States, and our members received the publications of the latter body. This connection was severed in 1926, but the two organizations continue in friendly co-operation. Since that date this Society has had its own monthly publication, "Cost and Management," which provides the members with a fund of educational material drawn from its meetings and from other sources, and also records the activities of the Society and its chapters. In 1927 headquarters were established in Toronto, from which the general business of the Society is conducted. In 1928 the Society inaugurated a plan for examinations and the issue of Certificates of Efficiency in Cost Accounting.

Toronto Chapter was formally organized in 1923, Montreal Chapter in 1924, Hamilton Chapter in 1925 and Winnipeg Chapter in 1928. With the growth in the population and industries of the Dominion of Canada, and the increased attention paid to cost work, the formation of new Chapters in other cities should be warranted.

Annual conventions, attended by members of the Society as a whole, were held in September, 1926, at Toronto, and in September, 1927, in Montreal.

The interests of the Society extend to questions of management as well as to cost accounting. Such topics as wage systems, efficiency of labour, plant design, and handling of work, are regularly dealt with at the chapter meetings, and in Cost and Management. It is recognized that while trade associations exist for the study of problems of individual industries, many phases of management and of costing are common to production as a whole. This Society provides channels for the interchange of experience and of opinion on these questions.

The services offered by the Society to its members may be summarized as follows:—

1. Chapter meetings—Held regularly in each chapter centre.
2. Cost and Management—Published monthly.
3. Employment Service—The Society has been the means of providing experienced men for available positions, and maintains a list of positions open, and of men available.
4. Any book in the Society's library may be borrowed by a member,—on receipt of 10c for postage. The book to be returned not later than two weeks.
5. Examinations (see below).
6. Research—Facilities are available for research into specific problems within the field covered by the Society.

## EDUCATIONAL FACILITIES

The examination requirements for the issue of Certificates of Efficiency in Cost Accounting have been printed in pamphlet form and are available to anyone interested.

To assist members who wish to try these examinations, the Society, through its Chapters, will arrange for courses of instruction in the subjects specified. Those in Montreal will find the evening classes conducted by the School of Commerce, McGill University, suitable for the first examination. For Toronto and Hamilton members, special courses may be arranged with the Extension Department of the University of Toronto, when the requisite number of students enroll. Particulars regarding these courses may be secured from Chapter officers.

Attendance at the regular meetings of the Chapters will also be found valuable by all who propose to try the examinations, as the addresses and discussions are nearly always on topics coming directly within the examination plan. The educational courses, in conjunction with the practical training which the student secures in his business, are intended to supply the basic training for the cost accountant or executive, and the Certificate of Efficiency is intended to be evidence that such training has been obtained. The regular meetings of the Chapters of the Society as a whole are for the discussion of new developments as they arise, and of the peculiar problems of the different industries in which the members are engaged.

# THE CANADIAN SOCIETY OF COST ACCOUNTANTS

## PRINCIPAL OFFICERS OF THE SOCIETY SINCE ORGANIZATION

### DOMINION EXECUTIVE

Year	Presidents	Vice-Presidents	Secretary	Treasurer
1920-21	Geo. Edwards, F.C.A.	Jas. Hutchison, C.A.	W. J. Valteau	W. J. Valteau
1921-22	Geo. Edwards, F.C.A.	R. J. Dilworth, F.C.A.	W. J. Valteau	W. J. Valteau
1922-23	Geo. Edwards, F.C.A.	R. J. Dilworth, F.C.A.	W. J. Valteau	W. J. Valteau
1923-24	L. Wright	Wm. Carswell, C.A.	M. G. Dolan	John Craig
1924-25	L. Wright	Wm. Carswell, C.A.	Henry Glover	G. H. Houston
1925-26	Wm. Carswell, C.A.	R. J. Dilworth	S. B. Peckham	G. H. Houston
1926-27	John Craig	L. Belanger, L.A.	R. S. Smith	G. H. Houston
1927-28	L. Belanger, C.P.A.	James Turner, C.A.	L. P. Lortie, C.A.	G. H. Houston
1928-29	James Turner, C.A.	R. R. Thompson, C.A.	(Editor and Manager, W. A. McKague)	G. H. Houston
1929-30	R. R. Thompson, C.A.	R. R. Thompson, C.A.	G. C. Leroux, C.P.A.	G. H. Houston
		R. E. Love	G. C. Leroux, C.P.A.	G. H. Houston
		S. E. LeBeq	(Executive Sec'y, W. A. McKague)	G. H. Houston
		H. E. Guilfoyle, C.A.	(Executive Sec'y, W. A. McKague)	G. H. Houston

### TORONTO CHAPTER (Organized 1923)

Year	Chairman	Vice-Chairman	Secretary	Treasurer
1923-24	R. C. Wright	H. T. Jamieson, C.A.	N. Bassin	G. H. Houston
1924-25	H. T. Jamieson, C.A.	N. M. Rabin	R. S. Smith	M. H. Smith
1925-26	H. T. Jamieson, C.A.	Jno. Craig	T. S. Jardine	R. S. Smith
1926-27	James Turner, C.A.	James Turner	R. A. Burdett	C. H. Black
1927-28	James Turner, C.A.	H. E. Guilfoyle, C.A.	D. C. Patton	R. A. Burdett
1928-29	J. E. Carruthers	D. C. Patton	J. R. Pidduck	H. A. Shlach C.A.
1929-30	D. C. Patton	R. Oaten	H. J. McQuillan	H. A. Shlach C.A.

### MONTREAL CHAPTER (Organized 1924)

Year	Chairman	Vice-Chairman	Secretary	Treasurer
1924-25	Wm. Carswell, C.A.	L. A. Peto	D. M. Farish, C.A.	S. B. Peckham
1925-26	D. M. Farish, C.A.	A. Richards	E. W. King	C. E. Whitten
1926-27	L. Belanger, C.P.A.	R. R. Thompson, C.A.	F. Fernie	C. E. Whitten
1927-28	R. R. Thompson, C.A.	G. C. Leroux	D. R. Patton, C.A.	C. E. Whitten
1928-29	G. C. Leroux, C.P.A.	L. A. Peto	D. R. Patton, C.A.	C. E. Whitten
1929-30	L. A. Peto	C. E. Whitten	D. R. Patton, C.A.	L. Rhodes

### HAMILTON CHAPTER (Organized 1925)

Year	Chairman	Vice-Chairman	Secretary-Treasurer
1925-26	Geo. R. Kerr	W. G. Donaldson	S. G. Richardson
1926-27	W. G. Donaldson	A. J. Finck	G. E. F. Smith, C.A.
1927-28	R. E. LeBeq	G. E. F. Smith, C.A.	M. I. Long, C.A.
1928-29	S. E. LeBeq	G. E. F. Smith, C.A.	M. I. Long, C.A.
1929-30	M. I. Long, C.A.	A. J. Finck	A. J. Mouncey

### WINNIPEG CHAPTER (Organized 1928)

Year	Chairman	Vice-Chairman	Secretary-Treasurer
1928-29	F. C. Gilbert, C.A.	W. J. Mundell	G. A. Phare
1929-30	W. J. Mundell	W. J. Logan	R. H. Sims

# THE CANADIAN SOCIETY OF COST ACCOUNTANTS

## OFFICERS OF THE SOCIETY

**PRESIDENT**—Col. R. R. Thompson, M.C., V.D., A.C.A., C.A., McGill University, Montreal.

**VICE-PRESIDENTS**—S. E. LeBrocq, the Steel Co. of Canada, Ltd., Hamilton; H. E. Guilfoyle, C.A., Clarkson, Gordon, Dilworth, Guilfoyle & Nash, Toronto.

**HON. TREASURER**—G. H. Houston, Rolph-Clark-Stone, Ltd., Toronto.

**HON. SECRETARY**—G. C. Leroux, C.P.A., Income Tax Department, Montreal.

**EXECUTIVE SECRETARY**—W. A. McKague, M.A., 81 Victoria St., Toronto.

**DIRECTORS**—J. S. Anderson, Western Canada Flour Mills Co., Ltd., Winnipeg; L. Belanger, C.P.A., 1527 Crescent St., Montreal; C. H. Black, Dunlop Tire and Rubber Goods, Ltd., Toronto; J. E. Carpentier, C.P.A., 232 St. James St., Montreal; J. E. Carruthers, Durant Motors of Canada, Ltd., Toronto; D. M. Farish, C.A., Northern Electric Co., Ltd., Montreal; F. Fernie, A. R. Whit-tall Can. Co., Ltd., Montreal; A. J. Finck, Moto-Meter Co., Ltd., Hamilton; T. S. Jardine, United Drug Co., Ltd., Toronto; W. J. Logan, Manitoba Bridge and Iron Works, Ltd., Winnipeg; M. I. Long, C.A., Clarke, Houston & Co., Hamilton; A. J. Mouncey, the Norton Company of Canada, Ltd., Hamilton; G. M. Mulholland, C.A., Thorne, Mulholland, Howson & McPherson, Toronto; W. J. Mundell, Ogilvie Flour Mills Co., Ltd., Winnipeg; R. Oaten, the Gurney Foundry Co., Ltd., Toronto; D. C. Patton, Sangamo Electric Co., Ltd., Toronto; L. A. Peto, Canadian Car and Foundry Company, Ltd., Mont-real; J. B. Sutherland, C.A., George A. Touche & Co., Winnipeg; Jas. Turner, C.A., The T. Eaton Co., Ltd., Toronto; C. E. Walker, C.A., Queen's University, Kingston; C. E. Whitten, Canadian Paperboard Company, Ltd., Montreal.

**AUDITORS**—Fred Page Higgins, F.C.A., Fred Page Higgins & Company, Toronto; C. H. Pelling, C.A., Clarkson, Gordon, Dilworth, Guilfoyle & Nash, Toronto.

## TORONTO CHAPTER

**CHAIRMAN**—D. C. Patton, Sangamo Electric Co., Ltd.

**VICE-CHAIRMAN**—R. Oaten, Gurney Foundry Co., Ltd.

**TREASURER**—H. A. Shiach, C.A., Rutherford Williamson & Co.

**SECRETARY**—H. J. McQuillan, S. F. Stinson & Son.

**DIRECTORS**—J. E. Carruthers, Durant Motors of Canada, Ltd.; W. G. Donaldson, A. T. Reid Co., Ltd.; C. S. Eddis, F.C.A., W. C. Eddis & Sons; F. P. Higgins, F.C.A., Fred Page Higgins & Co.; W. M. Lane, Lever Bros., Ltd.; K. A. Mapp, C.A., Henry Barber, Mapp & Mapp; H. Perrin, C.A., Clarkson, Gordon, Dilworth, Guilfoyle & Nash; W. G. Pierdon, Hydro-Electric Power Commission of Ontario; J. W. Spence, Canadian Kodak Co., Ltd.; R. F. Bruce Taylor, C.A., Edwards, Morgan & Co.

## MONTREAL CHAPTER

**CHAIRMAN**—L. A. Peto, Canadian Car and Foundry Company, Ltd.

**VICE-CHAIRMAN**—C. E. Whitten, Canadian Paperboard Co., Ltd.

**TREASURER**—L. Rhodes, Consolidated Lithograph Manufacturing Co., Ltd.

**SECRETARY**—D. R. Patton, C.A., R. Schurman & Co., 189 St. James St.

**DIRECTORS**—J. Graham Barrow, Dominion Rubber Co., Ltd.; Geo. T. Bowden, the Steel Co. of Canada, Ltd.; E. W. Davies, Dominion Textile Co., Ltd.; H. Kerrin, C.P.A., C.G.A., Edward C. Baker, Kerrin & Co.; R. W. Louthouse, Canada Power and Paper Co., Ltd.; J. P. Masterson, Canadian Industrial Alcohol, Ltd.; H. E. McCrudden, A.M.E.I.C., Bell Telephone Co. of Canada; Jean P. Rolland, Rolland Paper Co., Ltd.; A. de Tilley, Dominion Oilcloth and Linoleum Co., Ltd.; H. H. Vroom, Northern Electric Co., Ltd.; P. W. Wright, Shawinigan Water and Power Co., Ltd.

## HAMILTON CHAPTER

**CHAIRMAN**—M. I. Long, C.A., Clarke, Houston & Co.

**VICE-CHAIRMAN**—A. J. Finck, The Moto-Meter Co. of Canada, Ltd.

**SECRETARY-TREASURER**—A. J. Mouncey, The Norton Co. of Canada, Ltd.

**DIRECTORS**—R. W. Doering, Frost Steel and Wire Co., Ltd.; M. W. Matchett, E. D. Smith Co., Ltd.; G. D. Meeke, Otis-Fensom Elevator Co., Ltd.; H. M. Ross, Mercury Mills, Ltd.; G. E. F. Smith, C.A., Richardson, Smith, Ferrie & Co.

## WINNIPEG CHAPTER

**CHAIRMAN**—W. J. Mundell, Ogilvie Flour Mills Co., Ltd.

**VICE-CHAIRMAN**—W. J. Logan, Manitoba Bridge and Iron Works, Ltd.

**SECRETARY-TREASURER**—R. H. Sims, Globe Bedding Co., Ltd.

**DIRECTORS**—F. C. Gilbert, C.A., Gilbert & Laird; John Parton, C.A., Geo. A. Touche & Co.; A. S. Pildrem, Canada Bread Co., Ltd.; T. E. Saul, C.A., Dunwoody, Nicholl & Company.

## REPORT OF PRESIDENT AND DIRECTORS

Presented at Annual Meeting of the Canadian Society of Cost Accountants, Toronto, March 28, 1929.

There has been a good increase in the membership of the Society in the year just ended, and though most of this increase is in connection with the new Chapter in Winnipeg, each of the other chapters is also ahead. The following are the figures, compared with a year ago:

	March 1, 1928			March 1, 1929		
	Sr.	Jun.	Total	Sr.	Jun.	Total
Toronto Chapter .....	90	13	103	89	19	108
Montreal Chapter .....	76	12	88	92	13	105
Hamilton Chapter .....	27	16	43	34	25	59
Winnipeg Chapter .....	.....	.....	.....	40	16	56
Elsewhere .....	46	.....	46	29	.....	29
Total .....	239	41	280	284	73	357

This increase in membership has meant a substantial gain in the revenue of the Society, and as expenses were just about the same as last year, we have a surplus of \$1,045.93 for the year just ended, compared with \$289.46 the year before. The total surplus carried forward is \$1,484.89.

### Publications

Cost and Management has been continued in its established form, giving papers read before our meetings and other material of interest to our members. During the year we also published a pamphlet setting forth the by-laws and describing the work of the Society; this was sent to the members and to others interested.

### Examination Plan

The steps taken towards examinations did not in the past year bring forth any applicants for examination, though a good many expressed interest in it. The Society has at least provided the opportunity for any who wish to take advantage of it.

### New By-Laws Adopted

Your directors, at a meeting held on June 19, 1928, adopted a new set of by-laws as printed and distributed already, and these with amendments subsequently adopted are presented for your confirmation at this meeting.

### Chapter Activities

The Chapter meetings of the year were carefully planned, the attendance of members has generally been good, and the material available for publication has improved accordingly. Under the new by-laws, the chapters are allowed 20 per cent. of membership fees, and this plan appears to be satisfactory. The following is a summary of the financial statements of the Chapters for the year:

	Balance Brought Forward	Receipts	Disburse- ments	Balance Carried Forward
Toronto .....	\$ 5.65	\$372.00	\$280.57	\$ 97.08
Montreal .....	179.22	319.72	197.42	301.52
Hamilton .....	65.02	125.05	156.75	33.32
Winnipeg .....		125.93	105.20	20.73
Totals .....	\$249.89	\$942.70	\$739.94	\$452.65

Winnipeg Chapter was organized during the year, and has proved quite successful. The Society is indebted to the officers of that Chapter for their efforts.

#### Plans for Coming Year

In spite of the gain during the year, the membership of the Society cannot yet be regarded as adequate, considering the importance which cost work has taken in Canada, and efforts along this line will be continued during the coming year. There are several points where Chapters may be established. The improvement in our membership and finances has placed the Society in a position to extend its activities and its services to members, and we can therefore, confidently hope that it will grow during the coming year.

## COST STUDIES PUBLISHED BY THE SOCIETY

(September, 1926, to June, 1929)

(Copies available at 50 cents each to members, or \$1.00 to non-members)

Accounts Payable Department, Routine of. <i>W. M. Wilson</i>	Mar., 1928
Accuracy in Business. <i>E. H. Morrow</i>	July, 1928
Administration, Costing as a Factor in. <i>E. T. Elbourne</i>	Oct., 1926
Administration and Costing. <i>S. Lawrence Gill</i>	Dec., 1926
Administration and Selling Costs, Distribution of. <i>A. E. Keen</i>	Apr., 1929
Aviation costs. <i>J. Hunter</i>	Apr., 1929
Balance Sheet. <i>H. D. Clapperton</i>	July, 1927
Banker's Viewpoint. <i>J. P. Bell</i>	Nov., 1926
Bedaux Point System. <i>W. R. Hodgson</i>	Nov., 1928
Better Management Practice. <i>W. J. Barrett</i>	May, 1927
Budget Control, Accounting and. <i>J. E. Goldring</i>	Jan., 1928
Budgetary Control. <i>H. Gilbert, C.A.</i>	Feb., 1928
Business Cycle. <i>H. Michell</i>	Sept., 1926
Commerce, Accountant and. <i>R. M. Sugars</i>	Aug., 1927
Controller, Company. <i>F. A. Mansfield</i>	Apr., 1927
Co-Operation in Administration. <i>Sir Joseph Flavelle</i>	Sept., 1926
Corporate Matters. <i>W. H. Coverdale</i>	Nov., 1928
Cost Criticisms. <i>A. Jones</i>	Dec., 1926
Cost Accounting. <i>R. R. Thompson, C.A.</i>	Sept., 1927
Costs and Cost Keeping. <i>W. H. Brown</i>	Oct., 1928
Crop Harvesting, Costs in. <i>E. A. Hardy</i>	Jan., 1929
Cost System of The Norton Co. <i>A. S. Merrifield</i>	May, 1929
Depreciation. <i>M. J. Smith</i>	Nov., 1926
Depreciation, Formulae for. <i>H. Tate</i>	Mar., 1929
Detail Operations of Cost System. <i>R. Dawson</i>	Sept., 1928
Distribution Costs. <i>W. B. Coetnholz</i>	Oct., 1926
Distribution, Cost of. <i>W. A. McCaffrey</i>	May, 1928
Economics, Applied. <i>S. A. Cudmore</i>	Nov., 1926
Education and Progress. <i>Sir Robt. Falconer</i>	Oct., 1926
Electrical Production Control System. <i>L. Ederer</i>	Nov., 1926
Engineering Service and Industry. <i>F. Burnett</i>	Nov., 1926
Education for Accounting. <i>H. Laureys</i>	Oct., 1927
Engineering Education. <i>J. A. Coote</i>	Mar., 1928
Factory Management Wastes. <i>J. F. Whiteford</i>	Nov., 1926
Factory Organization. <i>J. A. Coote</i>	May, 1928
Financial Statements. <i>S. E. LeBrocq</i>	June, 1927
Financial Statemnt. <i>John Cowan</i>	Aug., 1927
Fire Insurance, Cost of. <i>W. A. Thompson</i>	Mar., 1928
Forestry Department, Costing in. <i>G. C. Piche</i>	June, 1928
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Instalment Plan. <i>H. Laureys</i>	Dec., 1928
Investing and Canada's Future. <i>R. R. Thompson, C.A.</i>	Oct., 1926
Justice, Unbalanced Scales of. <i>R. B. Graham</i>	Feb., 1929
Labour Distribution. <i>L. A. Peto</i>	May, 1927
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Lithographic Plant, Handling Supplies in. <i>C. Wigle</i>	Apr., 1928
Merchandising, Changing Conditions in. <i>C. L. Burton</i>	Aug., 1928
Operations of Manufacturing Co., <i>D. M. Farish, C.A.</i>	Mar., 1927
Operation of Modern Cost System. <i>L. Rhodes</i>	Jan.-Mar., 1927
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Packing Business Cost in. <i>G. M. Pelton</i>	Nov., 1927
Petroleum Industry, Costs in. <i>T. C. McCobb</i>	June, 1927
Photography, Costs in. <i>Charles Rice</i>	Aug., 1928
Plant Engineering and Handling Labour. <i>H. F. Wilson</i>	Dec., 1926
Plant Maintenance and Costs. <i>T. S. Jardine</i>	Jan., 1927
Practical Cost Accounting. <i>F. C. Laurence</i>	Dec., 1926



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- \*Marshall, Wm. J., The Ogilvie Flour Mills Co., Ltd., Winnipeg.
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## Incidence and Incidents of Taxation

By L. BELANGER, C.P.A., C.G.A.

(Before Montreal Chapter, Oct. 25, 1928.)

*"We are more heavily taxed by our idleness, pride and folly than we are taxed by government."—Franklin.*

**L**EROY BEAULIEU defines tax as "the contribution levied on each citizen as his share in the expenditures of the government." Mirabeau addressing the Assemblée Constituante called it "a debt common to all citizens, a sort of compensation or indemnity and the price of advantages derived from society." Others say that it is a diversion of income or wealth from individuals to the state, meaning that individuals can spend less of their returns from economic activity and that more is spent for them by the state.

Incidence of taxation is the shifting of an impost from the person who pays it to the public treasury, to another person whom the public treasury does not know and very often does not intend to tax.

Hamilton in "Current Economic Problems" writes: "If we are taking thought for the morrow, and are concerned with increased efficiency of production and equity in distribution, we must pay particular attention to the incidence of taxes in the factors of production."

You have now to note the relation of taxes, and their incidence, to costs.

Older statistics show that the taxpayer, individual or corporation, had to deal with 52 modes of taxation. Recent information tells us that this number has been raised to 57. Most of us have, in some way or other, to absorb a good portion of the 57 varieties. Unfortunately, they are all in the sour class. Of some we have acquired the taste, by repeated helping and habit, though without much enthusiasm. Others are the tangible results of war. None are popular. Most of them are quite unknown, as to their components, application and incidence. Business profit and income taxation have come into existence, sales tax has come out in 1920 to replace business profits tax and now runs concurrently with the income tax. Sales tax has varied in percentage, being shifted to the manufacturers and, with the income tax, is

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now going downward. Other taxes were short lived such as the peak luxury tax on automobiles and gallonnage tax on soft drinks. The tax of one per cent. on gross receipts of trust companies is now a thing of the past while the same tax is still collected on gross receipts of insurance companies. We may call this a tax on business losses. Stamp tax, which is not the worst, is still with us. Such a multiplicity of taxes has created a confusion that the government would be well advised by repealing those which are a nuisance or too complicated in application or collection.

Leroy Beaplieu says: "Reforms in taxation must be effected much less by substituting a new tax to an old one than by means of reduction." "That is to say by using the surplus of taxes resulting from prosperity to the reduction or total elimination of old taxes that are no longer worthy of existence or should have never been enacted. The latter may have been unfair, unjust ever since they have been enacted either through difficulty of application or on account of their incidence.

### Determining Incidence

The problems connected with determination of the real incidence of various forms of taxation are among the most complicated problems of economics. It is difficult, at times, to distinguish the person who will be the last, after many repercussions, to assume the entire burden of a tax. This is my excuse for presenting only a few of the problems of incidence of taxation with which we are familiar more in respect of their application than their ultimate consequences. Their relation to costs will be quite apparent and you may draw your own conclusions. However, to get an intelligent view of incidence we must not confine ourselves to income and sales taxes; some of the others closely related to them will facilitate our study.

The war has caused extraordinary movement of funds. A sudden demand called for quick answer. When we look at the multiplicity of taxes, past and present, some of them of short duration owing to their ill effects or poor results, we may ask ourselves if proper study has been made of their repercussion, or their incidence. I am not aware that many experts have been invited to give advice. I know for a fact that very little encouragement, if any, has been given some who have made a timid attempt to offer suggestions.

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H. Gunnison Brown in "Economics of Taxation" has this to say: "Only a thorough study of cause and effect relations in taxation can, in fact, make any one a competent leader of public opinion on tax problems. As to whether the recognized leaders of the public on matters of finance ever will be chosen from among those who, as students have learned to trace cause and effect relations rather than from among those whose teachers have encouraged them to specialize on the superficialities of the subject, we cannot say." He supposes with severity "that again in the future, as many times in the past, the so-called 'leaders' whom the public appears to follow will be men of no real comprehension of the problems, like those they purport to lead, chosen for high position because they share the ignorance and the prejudices of those who do the choosing. So likewise, the experts selected to serve as legislative advisors and otherwise in questions of taxation may often be thus selected because they can give plausible if sophistical reasons for socially undesirable policies or because they can point out how to do with precision and finesse, things that might better not be done at all. Nevertheless, it is a leadership of a different kind from this which we should covet for our students in the years when they become, some of them, prominent in economic investigation, journalism and public life." He states further: "If neither the people in general nor their legislative representatives comprehend the laws of the shifting and incidence of taxation, then the taxation policy adopted will almost certainly have results that were never intended."

This brings me back to 1915 when a certain act in the statutes, since 1919 or 1920, was in the process of discussion by so-called "leaders" as above. I, with a few others, were not among the "leaders" though we were allowed to express our views. We vehemently opposed any further move before those who knew, had been consulted and had reported after careful study of the proposed law. We lost. A prominent member of parliament who had reluctantly put the bill before the house said later: "I did not recognize my child when it came out of the machinery as a law. It was disfigured. It was certainly worse than before and I do not know that it will work." As a matter of fact it took several years of amendments to put it in workable condition and it is still a source of income for lawyers.

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I believe that economic investigation has many points of contact with analytic accountancy, a broader and more accurate appellation of our work. The influence of taxation on costs and the large space it occupies in budget and organization work should be an invitation to further this study. We, as students and the university students of many faculties should not overlook this new avenue.

### **New Taxes Brought By War**

The war has caused many modes of taxation to be added to the already large groups from different governments in an over governed country. The money had to be borrowed. Interest and other resultant expenditures have become a fixed charge. We have to meet a certain amount annually besides the regular business of the government that should be carried on from the old style imposts.

From the war group of taxes, the income tax and the sales tax still in force are the most discussed. The discussion for certain people is very simple, they suggest a 10% sales or consumption tax on every commodity and want income tax removed. They say that everybody would pay in proportion to his expenses and be happy. We will see how this works out later. Just as a memo, I will mention the opinion of two eminent legislators who seriously surmised that income tax should be paid only after deducting living expenses (the actual figure for each taxpayer) and investments made in Canadian enterprises. This meant that the levy would have been only on savings bank deposits, if any at all. I met recently one who thought the act was too complicated. He suggested class taxation. Say \$100.00 per annum for lawyers (he is a lawyer with a large income) \$250.00 for doctors etc., irrespective of income (he did not say what the accountant should pay) and that the difference be paid by corporations. Still others belonging to the big income class and being directors of large corporations, condemn the sales tax at the board table and execute the income tax when outside. Generally, the only good in a tax is when it is, apparently at least, paid by the other man. Individualism plays its part and little attention and no study is given as to who should pay the tax or who really pays it. I close this Chapter by a quotation from C. Delisle Burns in "Political Ideals": "As action has social effects, results have social causes. The credit for earning a large income should not rest merely with the individual financier, but with the cir-

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cumstances which made such earning possible; and this is only an abstract method of saying that the credit is due in part to the other individuals of the same group. The labour of the millions of poor had literally made it possible for the few to be rich not only, by direct work in the production of wealth but also in the continuous peace which alone makes it possible for the merchant to exercise his ability. We need not maintain here that a larger reward is due to those whose labour has produced the wealth in any group, for our present purposes it is sufficient to acknowledge that the united labour of the group makes wealth and no individual is an isolated cause of such wealth. Men are not isolated in working: the result of work is as much due to the many who produce as to the few who direct; and just as we cannot count precisely the value of the individual's pull when many are moving a large weight which could not be moved if each pulled singly, so we cannot fairly distribute the results of social labour by reference to the separate intelligence or strength of each."

May we not conclude from this that he who earns a large income from acquired or inherited wealth or even wealth in the making, owes more to the community than the one who has contributed to the creation of such wealth without retaining a share of it? He is already doing it when paying his water rates, school taxes, etc., which are not in proportion to the use he has of these services but according to estimated rental of his mansion.

### Effect of Currency Inflation

Monetary Inflation is a species of taxation. If the issue of paper money operates to push out gold or other metallic money into foreign countries, the people of the issuing country suffer no loss in their current consumption of goods. But further issue of inconvertible paper money bids up prices and consumers are, in effect, taxed since government bids against them by purchases of goods and services and their money buys less. If all prices would rise equally the burden would be distributed over all consumers according to their expenditure and its ultimate incidence would make it similar to a general sales tax. But this is not the case. In Germany and Austria under rapid inflation, prices have risen more than in proportion to the increases in monetary circulation and in unequal proportions on different commodities on account of increased velocity of circulation.

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The uniformity of incidence has been disturbed. Recipients of salaries which are apt to change slowly, recipients of rentals determined in advance, recipients of interest on bonds which continue to receive the same number of dollars are subjected to a heavier repercussion and even a loss, which becomes a favorable incidence to the employer, tenant and borrower. The burden of such government financing is thus very unevenly distributed over various classes of citizens.

### Government Borrowing

Government borrowing being the initial cause of taxation, is worthy of some attention. An individual borrows from another individual. A nation may borrow likewise from another nation, but as a rule, a nation borrows within itself, of its own citizens. The money thus borrowed is transferred from some of the people to the government and spent by the government thus reducing by the same amount the spending capacity of the citizens. The wealth of the nation remains unchanged. The government may not buy the same articles that the people would buy, but the industry may adjust itself to the manufacturing of goods required by the government. The "Business as usual" slogan in war time may become a fallacy and turn to be "expenditure as usual" prompted by industries who tried to sell to the public articles that they could not afford, having been deprived of the funds. This is one incidence of the government borrowing as in many cases the lender, if a salaried man, capitalized part of his income into government bonds. Is taxation method of securing funds better than the bond issue or borrowing method. H. G. Brown tells us that the latter "would seem more likely to draw the funds of persons who are inclined to save and invest than of those who are inclined to spend as rapidly as they get. As between persons of equal wealth and income, at least, the taxation method would not seem likely to do so."

By borrowing, rather than by taxation, the burden may be put, or part of it, upon posterity. If a country borrows from another, it will have been enabled to buy goods and supplies it did not have to pay for, and it is undoubtedly possible that payment will have to be deferred on account of internal shortage of funds that necessitated the borrowing and thus the burden will be upon the next generation. Now suppose a nation borrows from its own people. Are



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such loans ever repaid? If there is no repayment until a new generation has reached maturity, then the lending generation, many being dead, never gets repaid. If repayment is made at an early date, the members of the lending generation are themselves the bearers of the taxes for repayment.

Suppose you have bought \$2,000.00 worth of Victory Bonds in 1918 due 1933 being your proportion to the purchases of others as are your tax obligations to the tax obligations of others. When 1933 comes you will have to contribute in taxes exactly \$2,000.00 to provide for this repayment and during 15 years you were deprived of the privilege of spending your money. You had also to pay taxes to provide for an equal amount of interest received.

Of course, this does not happen in practice. A person who bought a few bonds in 1918 may have a large taxable income in 1933 and vice versa. It may be said then that the people as a whole have lost by loans just as well as by taxation and that they are doing the repaying themselves. This may not be the case of the individual. The lender's taxes will be largely devoted to pay himself back and if he did not lend, his taxes will help pay others back. Lending therefore does not cost more than not lending. The collectivity therefore might as well contribute by taxation and be through with it. If reimbursement is deferred to another generation, the present one will receive nothing. When repayment is undertaken to the new generation, it will do all the paying and also all the receiving. This is another incidence of government borrowing.

### Burden of War Taxes

Some authors claim that war bonds of the government are a mortgage of the Masses to the Classes. It is quite clear that if taxation is resorted to to provide funds, a sharp progressive tax will have to be levied and the wealthy will be the victim, but the process will stop there. But if the wealthy lend the same amount or more, against TAX FREE bonds, then somebody of less means, who could not buy the bonds, will be taxed for interest payments and repayment of the principal if a sinking fund is included, in other words, the poor who has little to spare, will bear the burden of this emergency financing for an indefinite period and this takes within the shadow of the sales or consumption tax.



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This is a third incidence of government borrowing. Of course, if borrowing or bond issuing method of war finance makes it possible to impose a considerable burden on the comparatively poor, it does not make it necessary to do so. The bonds can be redeemed with money raised by taxes levied upon the rich. This would take us back to the progressive income tax.

Another phase of government financing by bond issue is inflation. With your \$2,000.00 bond as security, you borrow \$1,800.00 from the bank. Your spending capacity is restored minus \$200.00. Demand exceeds supply as there is now \$3,800.00 to spend instead of \$2,000.00 and prices therefore rise. The government having to outbid you, more dollars must be borrowed than otherwise would be necessary. This incidence may add to the prosperity of some classes but again the holders of securities yielding fixed interest, including government bonds bought before end of inflationary movement, landlords and salaried people get the worst of it.

May we not conclude from all this that taxation is better than borrowing? Who should bear the burden? My quotation from C. D. Burns and the above paragraph already give some data. Let us hear what economists and authors have to say before looking into the incidence of better known modes of taxation.

Leroy Beaulieu says: "Outside of the pauper, everybody must be subjected to the honorable obligation to contribute to public expenditures. Universal impost is the necessary corollary of universal suffrage." He continues further regarding exemption of small incomes, which are the majority, that at election time, they would dictate and govern without responsibility. He favors a proportional tax on the income as the only just and fair. About the progressive taxation he claims that it is not equitable though the principle of equal sacrifice which does not mean proportional taxation may be invoked in favor of progressive taxation. He calls the latter a spoliation. It is a tax whose mother is jealousy with oppression as daughter.

War taxes are not specially mentioned here. Remembering that the wealthy has had the opportunity of depriving himself of "the honorable obligation of contributing to the public expenses" by the purchasing of tax free bonds, we read further in Leroy Beaulieu that other direct taxation in France and very much elsewhere such as personal tax,

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land tax, door and window tax, the various stamp and transportation taxes and others have a very close relation with the status of the individuals." This may mitigate his former statements. He adds that it is the desire of the legislator to have every inhabitant of a country contribute in proportion to his expenses. As most spend nearly all their income, it would be nearly in proportion to the income.

We must distinguish here between income and profit. According to J. B. Say, income is the result of the effort of others using your capital. Profit is created by your own efforts. This explains why the income tax act is so explicit as to what is intended to be taxed.

### Smith's Principles

Adam Smith in "The Wealth of Nations" has promulgated his famous maxims or canons of taxation: 1. "The subjects of every state ought to contribute toward the support of the government, as nearly as possible, in proportion to their respective abilities." 2. "The tax which each individual is bound to pay ought to be certain and not arbitrary." 3. "Every tax ought to be levied at the time or in the manner, in which it is most likely to be convenient for the contributor to pay it." 4. "Every tax ought to be so contrived as both to take out and to keep out of the people as little as possible over and above what it brings into the public treasury of the state." Adam Smith favors the progressive taxation and concludes; "That the wealthy contribute to the public expenses not only in proportion to their income but more, is not unfair and unreasonable."

The first maxim distributes the burden according to ability. It is agreed, at the present time, that taxation should be designed so as to cause "equal proportional sacrifice." A more explicit definition of ability. S. J. Chapman in "Outlines of Political Economy" explains that: "Taxation which embodies the principle of proportional sacrifice must be progressive. By the principle of progression is meant in general that the higher the clear net income of a person, the greater must be the rate at which he is taxed." "The need of progression is derived from the known facts as regards the variation of the utility of income with its amount and it is practically certain that taxation proportional to income exacts a greater proportional sacrifice from the poorer of any two persons, other things being equal."

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Should we be satisfied with this, our income tax system in its principle would be more equitable than the sales or consumption tax which is advocated by those who prone income tax of a uniform percentage on all incomes, but are afraid that collection would be too expensive. In "Evolution vs. Revolution in Federal Tax Reform," T. S. Adams commenting on the spirit and purpose of income tax says: It is "principally a rather blind groping of democratic peoples to reduce and relieve the striking inequalities in the distribution of wealth and income. Politically the major forces at work make for equality. Commercially, the greater forces make for concentration and inequality of power. The two forces are irreconcilable without some corrective or equilibrating machinery such as progressive taxes." We may give thought here to the theory of double taxation on unearned income in addition to progressive taxation. This is practically what we have now through the recent amendments to the act though somewhat alleviated by certain provisions.

Andrew W. Mellon in "Taxation": "The People's Business" claims that our present system is taxing energy and initiative. He says that to share not at all in a man's losses and to take a good portion of his gains making him work one or two days out of six for the government is to impose odds too heavy to be borne. He adds that the income of wealth already existing or inherited with the privilege of tax free investments should be taxed high enough to relieve wealth in the making.

A whole man's life may be spent arguing and discussing the equity or justice of progressive taxation, but nevertheless "the more the facts concerning personal incomes and business profits become common knowledge, the more will the dictates of common sense, fairness and justice insist that progressive surtaxes and excess profits taxes be retained" says David Friday in "Profits, Wages and Prices." A tax which falls upon all profits and incomes alike may discourage the man who receives only the necessary income before paying taxes, but a tax which falls only on the surplus of income utility or that may be drawn from, for instance, speculation profits, which are tax free, will leave the orderly process of business undisturbed.

Conflicting interests will always render discussion rather sterile after having been somewhat acrimonious.

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However, I believe, we have here material for a practical argument and I will let you start something.

Personally, I believe in progression of taxation and we will see how figures fare later.

### Customs Duties and Tariff

There is no doubt in your mind that when the importer pays his duty, it is merely an advance and it is promptly shifted to the consumer. This is the ordinary incidence of tariff for protection or for revenue. Only tariff for protection as its name implies discourages importation in favor of home production. Tariff for revenue is mainly on certain articles like alcohol, tobaccos and other luxuries. On account of high duty on import, a corresponding duty, or very nearly, is imposed on home production and this is the excise duty, which equalizes prices to the consumers.

Suppose now an article invoiced at one dollar by foreign producer and the duty twenty five cents. This duty is increased to 30 cents. This will likely check importation and the home manufacturer will pay an income tax of 8% on the extra five cents which will be all the government will get, against 25 cents as heretofore. The income tax will therefore have to be raised generally to make up the difference caused by one of the few articles thus protected. This is an incident and the incidence of certain changes in tariff.

Are we sure that the increase in price caused by the advanced tariff will not decrease the number of yards of cloth consumed. It is quite possible that the supply will exceed the demand. Prices are forced downward. If adjusted to the demand, production is decreased and higher costs are the result. The home producer especially under increasing costs conditions has very little chance of getting the extra five cents and the incidence is against him.

It may also happen that the extra five cents will be borne by the foreign producer. If the home producer does not get more than 3 cents out of the 5 cents and the foreign producer is in exactly the same position as the home producer as to reduced volume of production, he will reduce his prices so as to meet the increased tariff and revised price to the consumer. Thus the incidence is on the foreigner.

The stamp taxes are part of the group called nuisance taxes. Their incidence is on users of bills of exchange, transfers, etc. The government collects in advance with

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very little expense and risk of losses and the taxpayer pays by instalments. Unfortunately, we all know that too many tenants, etc., evade this tax and the burden falls on a small group.

There is a small tax, which is a part of the special war revenue act 1915 which I call the tax on business losses. This is the 1% on gross receipts of insurance companies and others. It has been repealed in the case of trust companies and should disappear altogether. It works like this: Gross receipts \$30,000.00 at 1% is \$300.00 deductible from income tax. If the profit is \$6,000.00, you pay to the insurance department \$300.00 and \$20.00 to the income tax department. The government would get \$320.00 just the same in income tax alone. If the receipts are \$22,000.00 and a loss of \$1,000.00 follows, you pay \$220.00 to the insurance department.

The incidence is variable. Insurance companies cannot shift it on old contracts, but I remember seeing bills for interest on loans showing the 1%. I am not sure that this was the intention of the legislator.

Compulsory workmen's insurance is a comparatively new form of taxation and when applied to all trades its incidence is on the workman's wages. The employer before hiring the workman compares the value of his services not with his prospective wages alone but with these wages plus the cost of the required insurance. He will not knowingly employ a workman whose services are worth no more than his wages alone. An insurance premium, however, imposed upon employers not in proportion to output or to sales but to the number and wages of workers hired will not raise prices in general and must fall upon wage earners and on them alone.

### Income Tax

Income tax is not shifted except in the long run diffusion of taxes when monies so diverted by the government are put in movement for goods and services and may incidentally bid up prices by a very small percentage. Its incidence is on the recipient of income or profit of individual in business.

At its origin the rates looked quite uniform but, with years, it soon became apparent that inequalities were created and their results are still felt. The individual in business with an income, say of \$300,000.00, had to pay nearly 55% to

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the treasury and be deprived forever of that portion and borrow to replace this. The company paid less than \$30,000.00 and could retain the difference as working capital or to face lean years when no refund of taxes could be expected. In the case of the individual, he had nothing in hand to cover a loss and went out of business as it happened in several instances. The late Business Profit Tax had at least this in its favor that companies and individuals were, on the same basis except for the small difference on exemption. Would it not have been possible to do the same with the income tax. By getting more from companies, the individual's tax would have been lower be he in business or an employee. The dividends could have been released and whilst the surpluses would have been smaller by the difference in taxation, they were free for any further use. I also believe that income tax in the case of new bond issues should have been collected at the source. Call the investment, share or bond, it is always borrowed money for the same purpose. Evasion by bondholders would have been lessened and thus the incidence of the general scheme of taxation made lighter on every one.

Many companies, especially in the cases with a few shareholders, have now reserves and surpluses that if distributed would pay a lower tax than a few years ago. Should the tax be abolished suddenly, the government would be making a nice present to shareholders at the expense of the individual in business or the salaried taxpayer. You readily note that whilst the incidence falls on the recipient of income, its intensity is much variable and very difficult of adjustment at present.

With its many faults and defects, it is claimed to be the best mode of taxation in principle. It is very curious to note, however, the indifference manifested by the taxpayer towards this act at its origin and since, to its different evolutions by amendments or otherwise. Why should taxes on vacant land, you are unfortunate enough to carry, be disallowed? Why a limit of time to contest and get a refund when there is no limit to the government correcting even its own error? Why pay interest on arrears and not get any on refunds. Why, under the late business profit tax, were you unable to get certain refunds; because the act, overlooked stating that monies overpaid could be returned. What of the old lien on property, now repealed, without a

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prescription against the government? And many other enactments that would have not stood close scrutiny. One of these you are familiar with is the distinction between A and B income, especially in the case of a salaried man owning some real estate. He has to make good his loss of income on real estate, out of his salary but cannot get allowance for it.

I therefore submit that income tax should have been adjusted long ago and should be revised to remedy, if possible, the past inequalities.

One word now on capitalization of taxes. It may be called a secondary incidence of taxation. Suppose the current rate of interest be 6% on investments. The stock of a concern which gives promises of \$18,000.00 annual profit would have a salable value of \$300,000.00. Now if by taxation \$3,000.00 is taken from the profit the salable value is reduced to \$250,000.00. The same would happen in the case of real estate holdings in a city where special circumstances would cause inequality of taxation as it is quite possible that rents could not be increased in one subdivision on account of increased taxes. This may have been the case of Maisonneuve ward when annexed to the city of Montreal. However, a sudden removal of this difference of taxation would increase the salable value in favour of the owner at the date of reduction of tax. This, of course, does not take into account the increase in value by changes in economic or business conditions foreign to actual values either of vacant land or income producing properties.

### The Sales Tax

Certain individuals or groups of individuals have advocated a general sales or consumption tax on nearly all commodities and the abolition of income tax. We now have such a tax on a large number of commodities. The contention is that income tax is not equitable and does not distribute the burden evenly. Certain classes such as farmers and others are not contributing to the expenses of the country though they affirm themselves in its conduct of affairs by suffrage. The rate that was suggested was 10% when the rate of the present partial sales tax was 5% as it was figured that it was needed to produce the amount necessary to meet obligations. Correct or not we will retain this percentage, for purposes of demonstration. It is also claimed that the collection of sales tax will be less expensive, which is quite



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true, as the number of persons accounting for same is not so large as in the case of income tax. It is also said that evasion will be reduced to a minimum. The incidence of sales tax is on the consumer but it is not shifted further or backward to the manufacturer or merchant? We must note at once that a general sales or consumption tax, could not reach the products of the soil which the farmer grows and consumes himself, whilst the next door labourer would see his purchasing power reduced by the amount of the tax as he has to buy everything. Theoretically, the farmer would pay a tax on clothes and shoes among the current necessities of life and partly on his buildings if he secures lumber, for instance, from his land. We have thus different incidences on income limited by nature and I do not believe that the object would be attained.

H. G. Brown in "Economics of Taxation" summarizes the tax on all commodities as follows: "A tax upon all commodities or upon all sales would fall, in the last analysis, upon wage-earners, interest-receivers, and rent-receivers. If there being no more money or credit to spend for goods, labour, etc., such taxes raise the money prices of goods, then they will lower money income in general—not merely wages. Prices of consumable goods can rise, though money incomes decline because the government, with the money received from the taxes, buys the surplus of goods which citizens cannot buy. The price of goods, including the taxes, will be higher; money incomes will be lower. So much money being paid in extra prices for goods, because of taxes, less money can be paid to the producer of goods. Net prices—i.e. prices minus the taxes—will be somewhat lower if there were no taxes. But net prices determine possible rentals, interest, and wages. The money value of the marginal products of land, capital and labour are reduced. Hence, the money incomes of the landowners, capitalists and labourers are lessened."

We already have an idea of the reshifting of the pressure which does not seem to be the intended incidence.

It would take us too long to discuss the variations of incidence in the cases of competitively or monopolistically made goods nor under constant decreasing or increasing costs. In such cases the incidence is either fully on the consumer and producer together according to peculiar movements in the costs and selling price of goods, created in the market by such taxes. A long paper may be written on the subject.



## INCIDENCE AND INCIDENTS OF TAXATION

If the sales tax does not apply to all commodities, the specific commodities that are taxed are sold at a higher price, the difference being the tax and sometimes the profit on the tax itself by the middlemen. These higher prices may cause some consumers to forego purchasing and cause some who would buy much were there no tax, to buy little. Those who are kept from purchasing on account of the tax, are induced to purchase other goods which, less satisfactorily, meet their requirements and lose something in satisfaction or utility. They pay no tax. What they lose the government does not gain.

If purchases are curtailed by the tax, the demand decreases and cost of production increases. We may remember here the luxury tax on automobiles, gallionage tax on soft drinks, etc. In the former case business was badly shaken up and in the latter most of the tax had to be borne by the producer besides the loss of decreased production.

It may happen in certain cases, where the margin of profit is large enough, such as articles of luxury, theatre tickets (amusement taxes) that part of the tax is absorbed by the producer and its burden is divided between producer and consumer, because the increase of price by the full amount of the tax may cause a large reduction in turnover.

### Can Wage-Earner Shift Burden?

When considering sales tax under another aspect, some authors are of the opinion that a tax so levied that it will fall upon the earnings of all labour will have some effect on population. The labourers may have standards of comfort such that they will be unwilling to have as many children if their incomes are reduced. Immigration will be reduced and population will not increase as it would otherwise. If the tax operates to diminish population and so as to make the supply of labour less, the wages are likely to be higher, not necessarily higher than they now are but higher because of the tax than they would be if the tax were not levied. Increased cost of production follows without corresponding velocity in increase of volume. Of course the effect on population must be considered only as a possibility and the monies so expended by the government may be to further the welfare of wage-earners unless some other fixed charges are to be met. In the latter case then the tax is a real reduction from labour incomes, but the incidence as we have seen

## **COST AND MANAGEMENT**

above is not altogether on the wage-earner alone. The influence of such reduction in remuneration will be found in a reduction of efficiency of the worker.

Let us turn now to the effects of sales tax on business and industry.

In practice, the manufacturer under the present act collects the tax and turns the money over to the government. The fact that he has to disburse within 30 days, very seldom after collecting from the middleman or consumer, causes an outlay of capital and interest which is very often dangerous. This is especially felt in the manufacturing of seasonal goods where terms of payment are longer. In the case of failure of a customer, the manufacturer has paid without collecting and should the manufacturer himself assign, then the government is the loser. Like any business, provisions have to be made for bad debts in a budget and someone has to pay for them. The distribution of the burden here has been somewhat erratic and at times unfair. There is another feature which has its influence, it is the profit on the sales tax itself, by the passing of goods through different hands, from the manufacturer to the consumer. If this be the case we would find that an article sold \$1.10 by the manufacturer including 10 cts. for sales tax would sell for about \$1.75 to the consumer after the wholesaler and retailer taking their profits and the tax would represent 15 cts. of which only 10 cts. would reach its destination.

Suppose a wage-earner earning \$7,000.00. He is consumer to the same extent. Under the general sales tax scheme he will buy 4,000 articles at \$1.75 of which \$1.00 per article goes to the manufacturer, 0.60 cts. to wholesaler and retailer in profit plus 5 cts. profit on sales tax and 10 cts. in tax, thus \$400.00 in taxes. If only a part of the commodities are taxed, this amount may be reduced to \$200.00 but income tax running concurrently, he is not allowed to deduct this expense and he is taxed on it. We now have compounding of taxes. He will therefore reduce his purchasing power by the amount of one or the two taxes with no other surplus to draw on.

### **Incidence of Income Tax**

In the case of a recipient of a large income he may be the consumer for the same amount but he has a surplus which is tax free.

## INCIDENCE AND INCIDENTS OF TAXATION

The same would apply to lower salaries which are not assessable under income tax and the sacrifice would not be proportional in any of the above cases.

A manufacturer does a business of \$110,000.00 which we will suppose is the limit of consumption or of what the consumer can spend. Without the tax his operation account may show a gross profit of \$22,000.00 or 20% and a net profit of \$6,000.00.

Under the general 10% sales tax scheme his sales are reduced to \$100,000.00 and if no extra cost is caused by reduced production he may still make 20% or \$20,000.00. His business expenses are not reduced in proportion and he may be left with only \$4,000.00 or less profit. We can readily see that income tax, in the first case even at a much stiffer rate would cost him less and he would be able to pay. If one year's operations result in a loss then he has nothing to pay for income tax whilst in the other case he may still be in debt for sales tax to the government. We have of course to consider here both taxes running concurrently as on a declining scale and not when the emergency forced the creation of revenue from all sources. We compare both taxes and may decide which should be retained.

Let us take now the case of a borrower before sales tax came to exist. He owes you say \$11,000.00 secured by mortgage at 6%. A sales or consumption tax is levied. He continues to pay interest at 6%, \$660.00, but the lender, as consumer, has not the use of the entire amount. When you reimburse the capital he may spend it on certain commodities and will not receive \$11,000.00 worth of goods. He may lend the amount again on a new building, but his security is decreased by the amount of tax paid on building material because your money did not buy goods for the full amount. We have here the incidence on capital and income.

In any scheme of consumption or sales tax, exportations must be exempted to meet competition in other countries where no such tax exists. Export taxes on certain articles or foreign excise cause peculiar complications and their incidence need not be dealt with here as they are not very important to us.

What conclusions are we to draw? The sales tax as we now have it is not very high and I dare say that in most cases has to be absorbed by the manufacturer to meet competition

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in an overequipped industrial world. The volume of business at present is increasing so that one may say that taxes have no ill effect on business. Those of us who are in professional practice and those who are in charge of industries, know what effort is required to write a reasonable and fair figure opposite the words: net profits, every year. We may venture to say that the extreme diffusion of business has caused many mergers to be formed. But the competition has remained and profits have not always been up to expectations. Are the taxes to blame? If so, which of them? Income tax cannot be shifted but rests on ability to pay. Sales tax is shifted to the consumer but may re-act so as to bear for a part on the producer if he has not already assumed part of the burden. The other taxes vary as to their incidence. Each and every one will have to study within his own sphere of action and whilst the solutions may be the same, the working out of the problems may be different. Personally, I do not think that we need so many modes of taxation which require so many separate machineries to administer them and I am of the opinion cited at the beginning of this paper that multiplicity of taxation causes confusion and heavy expenditures besides complication and irritation to every inhabitant of a country. It is better to maintain a tax at a figure that will bring the needed income than run a large number of taxes at a reduced rate, all incidences being ascertained.

This paper is the result of much observation and of some study. The authority of some writers and economists has been brought into the picture. My views like those of the authors are not final. They are subject to controversy and discussion like many other cases of incidence that I could not include here. If I have succeeded in turning your thoughts to this problem of incidence, I will not have spoken in vain.

## BUDGETARY CONTROL

# Budgetary Control

(From an address on "Some Results of Business and Market Research," delivered before the Business Research Association of Great Britain.)

By JOHN C. KIRKWOOD

**T**HE risk in business practice is being eliminated by the formulation of budgets for the instruction and guidance of the production manager, the sales manager, and the financial manager.

In a certain fine-paper mill, budgetary control co-ordinated production and sales, set up standards, indicated economical purchasing, and checked labour and indirect expenses. A summary at the end of the year showed that centralised control over operations and the introduction of standard production rates for all producing units or processes led to an increased efficiency throughout the plant. The average production gradually rose from 5 per cent. below to 7 per cent. above the estimated standard rates. The actual net production was 4 per cent. higher than the budget estimate, and the forecast in sales of the individual grades was 96 per cent. correct. Manufacturing expenses were within 5 per cent. of the correct ratio to estimated expenses. Centralised budgetary control brought about 98 per cent. of accuracy on the average and even in the very short periods of forced idleness on account of poor industrial conditions during two summer months, labour expenses were kept in approximate ratio to actual production results.

Intensive sale activities and advertising campaigns planned and performed according to the budget resulted in the attainment of 96 per cent. of accuracy in sales estimates.

The well-planned routine of operations and production enabled the management to keep its stocks of raw material at a minimum; and thus avoided an unnecessary locking up of funds.

Budgetary control improved co-operation among department heads; it made possible a better linking up of processes and operations; the flow of materials from process to process or from department to department was regulated, and functioned far better than before centralised budgetary control was adopted.

This sketchy record of an instance of the efficacy of the budget system suggests how budgetary control eliminates speculative or blindfold endeavour, and how it can and does contribute to business safety and prosperity.

## Costs in Crop Harvesting

By PROFESSOR E. A. HARDY, M.S.A.

*Department of Agricultural Engineering, University of  
Saskatchewan*

(Before the annual meeting of the Dominion Mortgage and Investments Association, Regina, Sept. 18, 1928.)

THE cost of harvesting has always been a serious problem to the grain farmer. As far back as 1806 when Gladstone invented the side-cut machine, the farmer was handicapped by the burden of harvest. It took a strong, skilled man with the cradle to cut 2 acres a day, and another man to tie the grain into sheaves. It has been estimated that until the use of the twine binder, 90 per cent. of the population were engaged in agriculture to produce food stuffs.

From 1806 to 1875 wonderful progress was made by the inventors of harvesting machinery. Henry Ogle, an English mechanic, added the reel and receiving platforms. Salmon gave the idea of the cutting mechanism which was improved by Bell, Hussey, and McCormick. The automatic rake was developed by Palmer and Williams, while the hand binding machine was invented by the Marsh Brothers. Spalding and Appleby developed the packers, sizer and twine tying mechanisms.

Since 1870 there have been many improvements upon the grain binder which have increased the efficiency of the machine wonderfully, but the original ideas of the pioneers, who had the vision, are still to be found in the modern grain binder.

In 1849 Jonathan Haines, of Illinois, patented a machine for heading the grain and elevating it into a wagon driven at the side of the machine. Only about 25 years later, in 1875, D. C. Patterson built the first combined harvester, which cut, threshed and bagged the grain.

"Why has it taken 50 years to develop the combine?" is a question often asked. It was because to a large degree the modern grain binder with the standard threshing equipment was making it possible to harvest vast areas much more per machine than was even anticipated.

## COSTS IN CROP HARVESTING

### Cost of Binding and Threshing

Where the 8-foot binder costs \$275.00 to \$300.00, the cost of using the binder per acre amounts to the following:  
Fixed Charges—

Depreciation on \$288.00 at 10% .....	\$28.80
(Average life of binder is from 2,000 to 2,500 acres).	
Interest on \$144.00 at 8% .....	11.52
Housing .....	10.00
Repairs .....	8.00
	\$58.32

The average cut per year with the binder varies considerably throughout the province, but is close to 200 acres. Thus the fixed charge per acre for the binder is \$0.29.

#### Operating Charges—

Horse Labour—4 horses at 10c per H.P. hr. for 12 days.....	\$ 48.00
Man labour—at \$5.00 .....	60.00
	\$108.00

Thus horse and man labour per acre equal \$0.50.

Average twine used per acre—3 lbs. at 14c, \$0.42.

Fixed charges .....	\$ 0.29
Operating charges .....	0.50
Twine .....	0.42

Total cost of cutting per acre .....	\$ 1.21
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The cost of stooking varies with the amount of straw, the class of labour, and the wages paid. Ordinarily, at \$4.00 per day, and \$1.00 per day for board, the cost of stooking will average \$0.50 per acre.

The cost of threshing varies a great deal depending upon conditions.

Threshing Machine Charges—(where the farmer owns his own outfit)  
Cost of 28" separator and belt averages .....\$1,600.00

Depreciation at 8% .....	\$128.00
Interest on \$800 at 8% .....	64.00
Housing .....	30.00
Repairs .....	50.00
	\$272.00

Average of 18 days' threshing—per day .....	15.11
Oil and grease—75c per day .....	.75

Total per day .....	\$ 15.86
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## COST AND MANAGEMENT

### Engine Charges—

Fixed charges—Cost of 15-30 engine .....	\$1,400.00
Depreciation at 10% .....	\$140.00
Interest on \$700.00 at 8% .....	56.00
Housing .....	30.00
Repairs .....	30.00
Labour for repairs .....	20.00
	<hr/>
	\$276.00

The average farm tractor of the 15-30 size is used 500 hours per year or 50 10-hour days. Thus the fixed charge per day is \$5.52.

### Operating Expenses—

24 gals. kerosene at 27c .....	\$ 6.48
1 gal. lubricating oil .....	1.10
	<hr/>
	\$ 7.58
Total cost of tractor power .....	\$ 7.58
	<hr/>
	5.52

Threshing machine charges .....	\$13.10
	<hr/>
	15.86

Total cost of outfit per day .....	\$28.96
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### Labour Costs—

6 stook teams and men at \$6.00 .....	\$ 36.00
Engineer to run both ends of thresher .....	7.00
2 field pitchers at \$4.00 .....	8.00
Board for 9 men at \$1.00 .....	9.00
	<hr/>
	\$ 60.00

### Wagon and Rack Charges—

6 wagons at \$75.00 .....	\$450.00
6 racks at \$20.00 .....	120.00
	<hr/>
	\$570.00

Depreciation on wagons at 5% .....	\$22.50
Depreciation on racks at 12% .....	14.40
Interest on \$285.00 at 8% .....	22.80
Repairs .....	10.00
	<hr/>
	\$69.70

Daily charge for 18 days' use .....	\$ 3.87
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Total cost of operating the threshing outfit .....	\$ 28.96
	<hr/>
	60.00
	<hr/>
	3.87

Total .....	\$ 92.83
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## COSTS IN CROP HARVESTING

A 28" threshing machine will average from 1,000 to 1,500 bushels of wheat per day, or from 35 to 50 acres of crop. The AVERAGE ACRE COST for threshing then runs \$2.32.

The cost of harvesting from the stand grain to the bin or wagon costs \$4.03 per acre.

The cost per bushel to cut and thresh with the binder and threshing machine averages as follows:

With a yield of	5 bus. per acre, cost is	80.6 cents per bus.
" " " " 10	" " " " " "	40.3 " " "
" " " " 15	" " " " " "	26.8 " " "
" " " " 20	" " " " " "	20.1 " " "
" " " " 25	" " " " " "	16.1 " " "
" " " " 30	" " " " " "	13.4 " " "
" " " " 35	" " " " " "	11.5 " " "
" " " " 40	" " " " " "	10.0 " " "

Where the crop is poor the cost of harvesting with the binder and standard threshing rig is too high for satisfactory results. Consequently the stook loaders, combination stook loaders and racks, power binders, headers, headers and barges, and swathers and combines have been used in an endeavour to lower the cost of harvesting.

### Stook Loaders

Where the stook loader is used, the threshing crew is reduced by the two field pitchers, and one, or sometimes two, stook racks, thus reducing the cost of threshing per day from \$92.83 to \$81.22, and making a daily saving of \$11.61.

There are many conditions which prevent the use of the stook loader, such as soft or hilly fields, but on reasonably level and uniform land the use of the stook loader is advantageous.

### The Combination Stook Loader and Rack

A few farmers in Saskatchewan are using the combination stook loader to reduce the cost of harvesting. Where this machine is used all of the stook teams are eliminated. Three spike pitchers are used at the threshing machine, two to feed the machine and one to throw in the grain, which is too far from the feeder to reach. Where such a machine can be satisfactorily used the cost of threshing is reduced from \$92.83 per day to \$70.90, with a saving of \$21.93 per day.

The greatest difficulty experienced with the combination stook loader has been that it was a heavy and somewhat

## COST AND MANAGEMENT

unwieldy machine, rather poorly designed, so that considerable trouble was experienced with its use. The improved machines are promising, however, indicating greater possibilities by adding a power unit so that the operation of the machine may be more accurately controlled by the operator.

### The Power Binder

The power binder has been used in place of the horse binder where heavy tangled crops are to be handled, and where the farming is done by engines. The average acreage with the power binder is 35 acres per day, which reduces the cost of cutting from \$1.21 per acre to 77 cents, with a saving of 44 cents per acre.

### The Header

The header is a machine which has been used in North and South Dakota and Montana to harvest light crops. It can only be used where the grain can ripen standing in the field. Considerable difficulty has been experienced in Western Canada with the headed grain being stack burned, due to heating in the stack.

The header has been used in the Arcadia Valley in connection with a barge, also at Ponteix, Sask. The Dominion Experimental Farm at Swift Current have built a barge, and are testing its use with the header as a method of harvesting. No definite figures are available as to the cost. An estimate of the cost of cutting and stacking, as compared to binding and stooking is as follows:—

Cost of machine .....	24.3 cents per acre
Cost of labour and power.....	76.6 " " "
<hr/>	
Total cost per acre .....	\$1.00

The small stacks are drawn up to the threshing machine with stack bucks in the Arcadia Valley, while at Ponteix the stacks are pitched onto the table of a combine which is drawn from stack to stack. This method undoubtedly shows considerable advantage in harvesting a short, light crop.

### The Combine

In 1910 Messrs. Shand and Edmonds, who were farming a tract of light, uniform land near Welby, Sask., imported a 20-foot combine from Stockton, Cal. They were growing Red Fyfe wheat and harvested 600 acres with the machine during 1910-11-12. Generally the wheat, when

## COSTS IN CROP HARVESTING

shipped, graded "tough." In 1913 they harvested 600 acres of flax with the same machine. Some of the flax was harvested during the next spring because of early snows. The next year they discontinued farming and sold out. The combine was not used by their successors.

The high cost of production practically forced some of the more daring farmers to try the combine in the south central states, and they found that their type of agriculture was adaptable to the use of the combine method of harvesting. In 1922 the Dominion Experimental Farm at Swift Current, co-operating with the Massey-Harris Company, started a series of experiments with the combine. During the summer of 1924 one of our Saskatchewan farmers imported a machine into the Goose Lake country, and since that time they have been used in Saskatchewan, spreading rapidly throughout the entire province, until last fall there were 530 combines in operation in Saskatchewan.

The cost per acre for operating a 15 or 16-foot combine in Saskatchewan is somewhat as follows:—

Average cost of combines .....	\$2,300.00
Fixed Charges—	
Depreciation at 10% .....	\$230.00
Interest on half the value at 8% .....	92.00
Repairs .....	50.00
Housing .....	30.00
	\$402.00

The average farmer on a section farm will usually cut 400 acres per year. Consequently the fixed charges per acre amount to \$1.00.

### Operating Charges Per Day—

25 gallons gasoline at 30c .....	\$ 7.50
Oil and grease .....	2.50
Power to pull the combine .....	13.10
2 men .....	10.00
	\$ 33.10

When 30 acres are cut per day the operating charge per acre is \$1.10. The total cost per acre would be \$2.10.

With a yield of 5 bus. per acre cost would be 42 cents per bus.	
" " " " 10 " " " " " " 21 " " "	
" " " " 15 " " " " " " 14 " " "	
" " " " 20 " " " " " " 10.5 " " "	
" " " " 25 " " " " " " 8.4 " " "	
" " " " 30 " " " " " " 7.0 " " "	
" " " " 35 " " " " " " 6.0 " " "	
" " " " 40 " " " " " " 5.2 " " "	

## COST AND MANAGEMENT

It is quite evident that there is considerable saving in using the combine for harvesting instead of the binder and a standard thresher. The difficulty which has not yet been entirely overcome is the great risk in leaving the grain crop stand until it becomes dead ripe. There is a danger of serious damage by storms and frost, as well as the fear of early snows, such as were experienced last fall.

Many of the farmers using the combine realize the importance of farming for the combine in order to use them with any degree of safety. The seed bed must be put into shape to insure uniform germination. The proper variety of grain must be grown so that it will mature early and uniformly, and also withstand wind and storm in the fall without shattering seriously. The crop must be seeded early so that it will be well out of the way of the frost by the middle of August. Grain must be seeded at the correct rate to hasten ripening.

Green weeds offer many difficulties to straight combining in the fall, consequently the successful combine user must farm to reduce weed growth.

The sawfly and wire worm offer difficulties to the combine user. Every effort must be made in a co-operative way to reduce the spread of the insect pests.

### The Swather With the Combine

Two or three years ago the Campbell Corporation, farmers in Montana, adopted the combine method for harvesting their grain crops. They were not satisfied to wait after it was possible to cut the crop with the binder. As a result the manager of the Corporation, Mr. T. D. Campbell, built conveyors on three old binders, after removing the knotters heads so that four binders cutting 8 feet each could be trailed after a tractor, cutting and placing 32 feet of crop in a windrow. After the crop had cured, they fastened a double cylinder type hay loader behind the table of a combine and picked up the windrow, elevating it onto the combine table and threshing it.

Since that time, the farm machinery companies have recognized the criticism to the use of the combine in that the crop must stand from ten days to two weeks longer than when cutting with the binder, for the grain to become dead ripe, and have designed swathing machines, which will cut and windrow 16 to 20-foot swaths of grain. These can after-

## COSTS IN CROP HARVESTING

wards be picked up by the combine and threshed. A very simple and satisfactory pickup has been designed to pick up the windrows of grain.

The cost of harvesting with the combine and swather is not fixed as yet. No reliable data is available. However, an estimate of the cost per acre and bushel is as follows:—

Average cost of swather and pickup attachment .....	\$800.00
Fixed Charges—	
Depreciation at 10% .....	\$ 80.00
Interest at 8% .....	32.00
Repairs .....	50.00
Total .....	<u>\$162.00</u>

Where 400 acres of crop is swathed the cost of the machine per acre would be 40 cents.

Operating Charges per day—	
Engine .....	\$ 13.10
Operator .....	5.00
	<u>\$ 18.10</u>

The average acreage cut would be 40 to 50 acres, with an acre cost of 40 cents per acre. Consequently the total cost of swathing per acre equals 80 cents.

The combine with the pickup can be operated for the same cost as when straight combining. Consequently the cost of harvesting by swathing and picking up with the combine would be \$2.90 per acre.

With a yield of	5	bus.	per	acre	the	cost	would	be	58.0	cents	per	bus.
" " " "	10	"	"	"	"	"	"	"	29.0	"	"	"
" " " "	15	"	"	"	"	"	"	"	19.3	"	"	"
" " " "	20	"	"	"	"	"	"	"	14.5	"	"	"
" " " "	25	"	"	"	"	"	"	"	11.6	"	"	"
" " " "	30	"	"	"	"	"	"	"	9.6	"	"	"
" " " "	35	"	"	"	"	"	"	"	8.2	"	"	"
" " " "	40	"	"	"	"	"	"	"	7.2	"	"	"

The farmer in Western Canada is facing the fact that farming is a business based upon science. The successful farmer will till the soil with the proper implements at the right time to produce as nearly a perfect seed bed as possible. He will use the correct seed and put it in in time to use the cheapest and best method for harvesting. There is no doubt, but that the combine and swather are here to stay, and the successful farmer will work out the seeding, harvesting and marketing of the crop so that each operation will prepare for and harmonize with the other.

## Stock Turnover

Lecture delivered before the Otago Branch of the New Zealand Society of Accountants, by G. Z. Lindley, Esq.

(From The Accountants' Journal, New Zealand)

**R**EFERRING to the subject-matter of my paper, I would like to say at the outset that there is little in it that will be new to many of you, but as it is a subject of utmost importance to traders, I am hoping that what I say may be the means of promoting a healthy discussion which would be valuable to us all. As there are probably some present who are fortunate enough to earn their living in businesses which do not handle stock, I will treat the matter first in an elementary way.

The duty of every business man is to force his capital to do as much work for him as possible; that means, allowing a given sum of money to remain in goods for the shortest period attainable.

*Turnover* is your gross sales in a given period.

*Stock Turnover* is the number of times the money invested in stock is turned over in the trading period. The method of calculating this is in dividing your total sales at cost price by the average stock at cost price—this will give approximately the number of times the money invested in stock, turns over in a given period.

The rate of turnover depends on two conditions:—

- (1) The average amount of money invested in goods.
- (2) The sales of the goods in a given period.

Both amounts must be stated in the same terms, (usually at cost price), in order to give the correct result, i.e., the turnover of the £ sterling as represented in goods. Since two elements only are involved, the problem of increasing the rate of turnover depends solely upon these, and one or both of the following must be done:—

- (1) The average amount invested in goods must be decreased relative to the volume of sales, or:
- (2) The sales must be increased in greater ratio than the increase in the merchandise investment.

To simply illustrate this—The average amount invested in stock in a year is £20,000; the sales at cost are £30,000. The Stock Turnover is one-and-a-half times.

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If the average stock is reduced to £15,000, and the sales at cost remain at £30,000, the stock turnover is two times.

Let us see the effect of the increased turnover on the gross profits.

Assuming the rate of G.P. earned is 20%, the G.P. in both cases is £7,500 ( $\frac{1}{4}$  on sales at cost). But in the first case, an investment of £20,000 is required, and in the second case £15,000, a saving of £5,000.

To carry the matter further, if this £5,000 were invested at 6% it would yield £300 per annum net. Or, assume that it enabled the business to take advantage of the full discount terms from its suppliers, say  $2\frac{1}{2}\%$  monthly, the money would yield 30% per annum on the amount so employed.

It is most interesting to follow the course of £ notes in a business. We provide a special till to keep them temporarily, a trusted servant to count and record them (probably in several books) a fireproof and burglar-proof safe to house them overnight, and next day they are recorded again and handed to a Bank for safe keeping, and these same notes, if invested on fixed deposits, or in some form of gilt-edged security, yield only from 5% to 7% p.a. When those same notes are invested in merchandise, practically little care is taken of them beyond checking them and dumping them into fixtures—much stock lies buried in brown paper instead of in the napkin of the Parable, but it is buried nevertheless.

The safe earning capacity of £100 in money invested is, say £7 p.a., but the earning value of £100 worth of goods, provided it is turned over often enough, is simply astounding. For instance, say it will return only 1% net profit on each turnover, we have only to sell and replace it seven times for it to be as good as the best gilt-edged security. If the goods were in perishable form, say fruit and vegetables, it would require to be turned over once a week (or it would go bad), that is, 52 times a year at 1% net profit. Your £100 would earn £52 instead of £7, and I submit, gentlemen, that non-perishable stocks to the extent of thousands of £'s go bad in this country every year from inattention and neglect of the stock turnover.

In the period immediately following the war when stock of every description was short, all classes of traders were buying wherever goods were obtainable. The wholesaler frequently bought from the retailers to supply the

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wants of his clients and many shipments of goods from abroad never entered a warehouse, but went direct to the retailer from the wharf. The shortage of stock of itself created a quick turnover and even allowing for a rising market it was the turnover of the £ which made that period prosperous—rising markets always made for rapid turnover and the reversal of all these factors made the slump so serious.

A further illustration: A building contractor finishes twelve jobs in a year, making £100 net on each job. He earns a total of £1,200 for the year. A second contractor finishes eighteen jobs a year making £75 on each job. He earns a total of £1,350. Moreover, he gets the business away from the first man, because his price is more attractive and when jobs are not plentiful the price consideration is of the utmost importance.

If money earns ten profits for its owner in a year he can afford to take a smaller profit each time than the man whose money earns him say five profits in the same time. And yet, the money which returns the smaller *rate* of profit will bring in the larger *volume* of profit, because it is so much more active. This is precisely the point that many business men fail to understand. They do not seem to grasp the fundamental principle that even though the percentage of gross profit on merchandise be but, say 5% if it is earned often enough say ten times a year, the annual turnover on money or rate of profit on investment would be 50%.

It is a difficult matter for many to understand how it is possible to lose money on an article carrying a 20% G.P. when the average cost of doing business is say, 8% and yet, on the other hand, made a profit on an article bearing only 5% gross profit. Do many business men judge the result of their businesses from month to month on their turnover? Because it is certainly the barometer they should watch, for it is said, and I believe it to be true, that more failures and bankruptcies have been caused by inattention to this, than from any other cause. We would scorn to employ sixteen men to do our work and let six of them loaf and earn nothing, but it is done every day with *stock* all around us.

With the foregoing information before us, which is largely made up of the opinions of leading business men in the world centres and has been gathered partly from the



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various Trade Journals of the world, we must draw the conclusion that the success of a business which deals in distributing merchandise of any kind depends not so much on the selling of it and a high rate of gross profit, but on the buying, and buying in the best market. Now, I would like to show you that the cheapest market is not always the best and never is the best if the question of turnover is not taken into account. Henry Ford says that a job line of goods however cheap is not profitable if it is more in quantity than the business requires. That is, if the turnover of the money invested in it is not taken into account, and it is never wise to buy more than is required whatever the price, for the net profit on a given line is not ascertainable until the last article of the line is sold. Take as an example, a line of what is described as fashionable goods—100 articles costing £1. The first 50 may be sold at 50% on cost, the next 25 at 25% on cost, and the last 25, say at cost, and in practice it may be well below cost to quit it. Looking at these figures without working them out, the result appears to be quite a reasonable one. We have done so well with the first fifty that we can afford to throw away some profit, but have we done as well as we imagine? The profits added on cost—£31 5s.—and as gross profits are calculated on selling price, we find we have made under 24% G.P. on sales.

The point I want to make is, how much better off we would be if we only had 50 articles, for with the 100 articles our £100 invested in goods yields £31 5s.—on cost and 24% on sales—and with the £50 only, invested it yields 50% on cost or 33 $\frac{1}{3}$ % on sales.

It will not be out of place to see what practical gain can be made out of our knowledge of the underlying principles of Stock Turnover. It is quite useless to have some excellent theories which are unworkable in practice. I am convinced that in this country there are hundreds of thousands of pounds lying idle in merchandise of various kinds mostly due to buying through the wrong channels. There is, undoubtedly a natural law for business and a natural channel through which it should flow to increase the country's prosperity and give a cheaper article to the consumer.

*First:* The manufacturer who collects the raw materials from all over the world and converts them into some useful articles.

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*Second:* The merchant or wholesale trader who collects the manufactured article from the manufacturers all over the world.

*Third:* The retailer or distributor to the ultimate consumer.

You cannot miss out one member of this chain—in fact, all our business goes through this way in effect, if not in fact.

Let us shortly examine the functions of these three classes.

*The Manufacturer:* His main business is to concentrate on manufacturing his products, employing, as he must, the best scientific brains to be had for the selection and treating of his raw materials and the best engineers to supervise his machinery and plant. He must always be on the look-out for opportunities to produce in greater quantities and improve the hidden values in the raw materials. Such a business, as you may well imagine, must be a business of specialists or competition will put them out.

*The Wholesaler:* His function is the collecting of manufactured goods of all kinds from every part of the world, employing, as he must, experts in each department of his business for buying and selling. Then again, he has a greater and more varied work in selling his collection of goods to the various classes of retailers for distribution. He has to provide accommodation for storing and showing his merchandise assisting the customers to selecting their requirements. This latter part of his business calls for expert salesmen and last, but not least, his book-keeping and credit organisation to offer facilities to his customers and for the collection of his accounts.

*The Retailer:* He is the man next to the consumer, who distributes his merchandise in small quantities for the use of his individual clients. His organisation, I should think is the most expensive of the chain. At the present day he offers and gives many facilities and service undreamed of even twenty-five years ago. But, notwithstanding his heavy overhead expenses his is the greatest opportunity of making money, for he may lean on the other two and does so, if he conducts his business wisely, so that his losses in stock are almost negligible.

The Wholesaler is usually described by the man in the street as the middleman and this word does not exactly de-

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note a term of endearment. But, I want to show you that for the distributor to gain the most profit for himself and the consumer to get the finest price, the so-called middleman is an essential link in the chain.

Take first the retailer who buys direct from a manufacturer. Does he eliminate the wholesaler? He does not! For this reason, that a manufacturer who sells direct to the retailer must add the wholesaling factor to the cost of his goods. In other words, in addition to being a manufacturer he is also a wholesaler. The cost of wholesaling cannot be eliminated. If a group of retailers do it themselves they must still add the wholesaling factor to the cost of distribution.

What is the result of a retailer in New Zealand buying from a manufacturer in England? It is this: he pays a manufacturer's and a wholesaler's profit on the goods he buys, in addition to the extra customs duty thereon, but the important point is that one profit that is the wholesaler's profit, is paid to persons outside the country instead of to persons in New Zealand who are really the retailer's own customers.

Let us look for a moment at the effect of this elimination of the so-called middleman to us in New Zealand. We are too far from our markets to make a rapid turnover of our money unless we use the wholesaler. A business buys, say, £5,000 worth of a certain line of goods for his season's requirements, and assuming that he is buying from the manufacturer and that his estimated gross profit is 50%, and he sells all his goods.

### **£5,000 Yields £2,500 Gross Profit.**

In ordinary goods the sale would be spread over say five months. If he buys from his nearest wholesaler £5,000 worth on which he only obtains a gross profit of 25%, but he can buy as he requires any 5 lots of £1,000 each.

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In this case, his total gross profit is only £1,250, but by the turn of money in the first case the investment of £5,000 yields £2,500 or 50%, and in the second case the investment of £1,000 yields £1,250 or 125%, and this, without taking into account interest, storage, insurance, or other charges necessary.

So I leave you to work out how much retail prices might be reduced if all business went through its natural channel.

In the case of stock our great trouble in New Zealand is over-buying, and one can easily see how this may happen if everyone is trying to import direct from a distant market. Part of the cost of the goods is paid out of the country to cover the wholesaler's charges which might remain in New Zealand, and inevitably too much is bought—much more than is sold profitably because it lies so long "wrapped in the napkin," and cost money to house and insure.

We have heard much lately about the High Bank Rate and the demands for its reduction, and it makes one wonder if it would not be more profitable for this country if the bank rate was higher still, as much of the money borrowed from banks by traders is to pay for stock "lying on shelves," and if we could not borrow so easily, it would develop in us the skill to make that laziest of servants that £ sterling work more profitably for us.

It is an indication of our generally unscientific use of money that the banks are called upon to lend so much to the trading community and the banks cannot be blamed for high interest rates. They are striving to get the best return for their shareholders, and their rates are competitive. Further they are dealing with money which can only earn a fixed rate of interest according to supply and demand. It is our fault that so much of their money is unnecessarily used and I might truthfully say, wasted by the trading community. The remedy lies in our own hands. We see much in our papers about the C.O.D. systems in New Zealand which I believe in every way is distinctly against the welfare of this country and pernicious and unfair to our traders. But are not the general public blindly following a bad example set by these same traders that the system is hurting so much, by spending as much as possible of their money outside New Zealand to their own detriment and the detriment of us all, whatever our walk in life.

## TREND OF PRODUCTION COSTS

The remedy for most of the evils I have mentioned, lies largely with the Accountants, whether in public practice or as financial advisers to their employers. And so, gentlemen, we can almost say that the prosperity or otherwise of the community rests in a large measure with the Accountant, who, with his special scientific knowledge of the use of money, is able to advise his clients or employers of the results that may obtain under certain conditions. The Salesman, is of necessity, a man of optimistic outlook and if he is buying as well as selling, it is necessary to have some restraint on him in his latter capacity, but not so much as to impair his efficiency as a Salesman.

I once heard the Accountant described as the "Fifth wheel of the coach." Times have changed, and the Accountant is now the fifth wheel of the car—not the spare, but the steering wheel.

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### The Trend of Production Costs

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Latest records show a slight decline in commodity prices, both in raw materials and in manufactured goods. Compared to the preceding year, the Dominion Government index for all commodities stood at 148.6 at the end of November, compared with 150.2 at the end of October, and with 152.2 a year ago. This is a slight change for the year, and really means that increases in some classes of goods have been slightly more than offset by declines in others.

So far as recent changes are concerned, the following show important decreases: fruits, vegetables, livestock, meats and poultry, wool and yarns, and sulphuric acid.

Recent advances have been in: furs, hides and skins, eggs, cotton yarn and thread, antimony, brass, copper, lead and tin.

The commodity price indexes, summarized, are as follows:

	Nov. 1927	Oct. 1928	Nov. 1928
Foods, Beverages and tobacco .....	155.6	158.7	155.6
Other consumers' goods .....	152.4	157.6	157.6
Total consumers' goods .....	154.2	158.2	156.5
Producers' equipment .....	175.4	176.5	176.5
Producers' materials .....	143.7	139.1	137.7
Total producers' goods .....	146.8	142.8	141.5
All commodities .....	152.2	150.2	148.6

These indexes represent percentages of price levels in 1913.

Other factors in production costs are also stable. There were only twelve strikes or lock-outs in November, compared with fourteen in October.

### **Need for Cost Accountants Recognized**

Cost accounting is to be a most important factor in the development of Canada, according to Prof. Ira McKay, Dean of the Faculty of Arts of McGill University, Montreal. In an address to the Lions Club of Montreal on November 22nd, Dean McKay mentioned what he thought was most needed for the progress of this country. This portion of his remarks were reported by the Montreal Star as follows:

"What Canada needed more than anything else was trained workmen. It was no good to bring in just immigrants, he stated. In rank of priority he classed the various needs of the country in this line as, first, scientific men to study the resources; cost accountants to determine working and production costs; capital, labor, then immigration."

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## CHAPTER NOTES

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### MONTREAL

A very successful half session was brought to a close by the Montreal Chapter on Thursday evening, December 6th, when members and friends were treated to a most enjoyable "Double-Header."

A. Graham Barrow, Factory Auditor of the Dominion Rubber Company Limited, treated prevailing methods of cost finding in the rubber industry. In this industry methods are now generally fairly uniform, and usually incorporate the three best known systems—the Job Order, the Process and the Standard. The present tendency, especially since the complexity of the manufacture has been so constantly increasing, is to pay less and less attention to the historical function of costs and to enlarge upon their value as applied to present and future operations.

The result of experiment has favored the use of the "Standard" cost system, to be used in cooperation with actual costs arrived at usually by the larger use of the "Process" method. "Standard" cost results are necessarily based on estimates and can be remarkably accurate, and the variation is usually so small that any abnormal conditions are immediately seen and investigated; this fine degree of accuracy to which "Standards" can be determined, provides not only a constant check on the efficiency of manufacture, but as well a reliable basis for the determining of normal selling prices and the conducting of the whole enterprise on general economic lines.

A. Bailey, of the Northern Electric Company, narrated his experience in helping to introduce an efficient cost system in various branches of the British Army. A thorough revision of accounts was made in all Army Departments in various parts of the Empire, during the years immediately following the War. The task was no easy one, for local Powers are not usually partial to outside interference, and the conversion of the prosperous quartermaster and the irascible O.C., was slow and difficult. The units of costs used varied with the branch of the Service concerned—it might be "Cost per head per day", "Cost per Ton Mile" or "Cost per Patient Carried."

The final results as presently shown, are highly beneficial—excess expenditures and wastage are largely cut or almost eliminated; disbursements are properly accounted for; and the Parliamentary vote covers actual requirements based on accurately determined estimates.

### TORONTO

In the absence of Mr. Gifford, of the Massey-Harris Co., Ltd., who was scheduled to speak at our meeting on December 5th, we had an address on Mergers and Amalgamations by W. D. Taylor, of Clarkson, Gordon, Dilworth, Guilfoyle and Nash, chartered accountants, Toronto. Mr. Taylor's paper was a most thorough one, dealing

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with just about every important phase of finance in connection with mergers, and we hope to see it in print for reference and for the benefit of members of the Society as a whole.

The film of the Dominion Textile Company, Ltd., which was exhibited on the 19th, is certainly one for which the company deserves much praise. We understand that this was the first exhibit of the complete film, apart from trial runs during the time when it was being prepared for public display. There are six reels, illustrating every operation from the growth of raw cotton to the packing of finished goods. E. B. Gordon, assistant to the managing director of the company, followed the film with a few remarks on the company's cost work, and E. W. Davies, who is in direct charge of that branch, and who is a member of our Society in Montreal, was also present, and added several points of information. Our members were certainly impressed with the variety of operations in the industry, and with the extent of the company's manufacturing system.

## HAMILTON

One meeting of the Hamilton Chapter was held during the month of December, taking the form of a dinner meeting, at the Wentworth Arms Hotel on Wednesday, December 12th. The speaker of the evening was Professor Michell, of McMaster University, Toronto, who chose as his subject "The Efficiency of Labour." Attendance of members and friends at the dinner exceeded all expectations and those present were amply rewarded by listening to the speaker, whose treatment of his subject was both instructive and entertaining. Very active discussion followed, which was only ended by the necessity of allowing Professor Michell to return to Toronto that night.



